

Application No. 10/066,019

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 1. (currently amended) A crosspoint switch integrated circuit comprising:
2 an array of input ports;
3 an array of output ports;
4 a switch matrix configured to selectively connect said input ports
5 to said output ports for conducting electrical signals therebetween; and
6 equalization circuitry coupled to at least partially offset trans-
7 mission losses experienced by said electrical signal while external to said
8 crosspoint switch integrated circuit, said equalization circuitry being
9 configured to measure jitter within said electrical signals and to utilize jitter
10 measurements as a basis for offsetting said transmission losses, said
11 equalization circuitry being responsive to said jitter measurements to
12 automatically select levels of equalization[.];
13 wherein said equalization circuitry is configured to recurrently
14 execute said jitter measurements and recurrently execute responsive
15 selection of said levels of equalization for individual said input ports, thereby
16 enabling said levels of equalization to track variations in said transmission
17 losses.

1 2. (cancelled)

1 3. (original) The crosspoint switch integrated circuit of claim 1 wherein said
2 equalization circuitry includes a plurality of adjustable equalizers, said
3 adjustable equalizers each having adjustable filtering characteristics within a
4 fixed number of equalization settings.

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1 4. (original) The crosspoint switch integrated circuit of claim 3 wherein each
2 said adjustable equalizer includes a plurality of switchable connections which
3 individually adjust said filtering characteristics when activated.

1 5. (original) The crosspoint switch integrated circuit of claim 4 wherein each
2 said switchable connection includes a switch, at least some of said switchable
3 connections including at least one component which significantly affects said
4 filtering characteristics when said switchable connections are individually
5 activated.

1 6. (original) The crosspoint switch integrated circuit of claim 5 wherein at
2 least some of said switchable connections are arranged in electrical parallel
3 and said components include capacitors and resistors.

1 7. (original) The crosspoint switch integrated circuit of claim 5 wherein at
2 least some of said switchable connections are arranged in electrical parallel
3 and said components include an inductor and a resistor.

1 8. (original) The crosspoint switch integrated circuit of claim 5 wherein said
2 switches are transistors and said components include at least some of
3 resistors, capacitors, or inductors.

1 9. (original) The crosspoint switch integrated circuit of claim 4 wherein
2 adjustable equalizers are coupled to said input ports in one-to-one
3 correspondence.

1 10-18. (cancelled)

1 19. (currently amended) A method of providing equalization for a crosspoint
2 switch formed on an integrated circuit chip comprising:
3 determining signal characteristics related to signal transmissions
4 via each of a plurality of ports of said crosspoint switch, including providing
5 on-chip measurements of jitter of electrical signals, wherein said jitter is
6 induced by off-chip conditions; and
7 setting equalization circuitry housed within said crosspoint
8 switch such that each said port has filtering characteristics tailored on a
9 basis of said signal characteristics for said signal transmissions via said
10 each port, said setting including activating adaptive equalization circuitry,
11 said setting being automated and being at least partially based on said
12 on-chip measurements of jitter.

1 20. (previously presented) The method of claim 19 wherein said step of
2 setting includes selectively activating and deactivating switching devices
3 which introduce parallel connections of resistances and capacitances within
4 said equalization circuitry, said equalization circuitry being a plurality of
5 adjustable equalization circuits.

1 21. (previously presented) The method of claim 19 wherein said step of
2 setting includes selectively activating and deactivating switching devices
3 which introduce series connections of resistances and inductances within said
4 equalization circuits.

1 22. (cancelled)

1 23. (cancelled)

1 24. (cancelled)

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1 25. (previously presented) The crosspoint switch integrated circuit of claim 1
2 wherein said equalization circuitry includes a multiplexer connected to a jitter
3 measurement component for providing said jitter measurements, said
4 multiplexer being connected to receive said electrical signals from each of
5 said input ports and being operatively associated with said jitter measurement
6 component to enable said jitter measurements on a port-by-port basis.

1 26. (previously presented) The crosspoint switch integrated circuit of
2 claim 25 wherein said jitter measurement component includes a phase-locked
3 loop for tracking data transactions within said electrical signals, said jitter
4 measurement component further including a voltage-controlled oscillator
5 connected to be responsive to operations of said phase-locked loop.

1 27. (cancelled)